

QE for CS546 Wireless Mobile Internet (each 20 points)

1. Define each (with max five lines).
 - PSNR (1 point),
 - IEEE 802.11p (1 point),
 - Cognitive Radio,
 - Layer 2 roaming delay for handoff
2. Does OSPF use flooding in the protocol? What is the purpose? And what is the way to reduce route control overhead? (3 points)
3. $WCETT = (1 - \alpha) * \sum_{i=1}^L ETT_i + \alpha * \max_{1 \leq j \leq k} T_j$ where ETT_i is the expected transmission time of link i in a path of length L and T_j is the sum of the transmission times on a particular channel j .

Describe the purpose of WCETT and is it possible to avoid the hidden terminal problem in a flow using WCETT?
4. What is a way to reduce the handoff delay in WiFi?
5. Why the VoIP capacity per Access Point is around 10 % of its max data rate?